REMARKS

In the Office Action[1], the Examiner rejected claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over Negishi et al. (U.S. Patent No. 6,005,590) ("*Negishi*"); rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over *Negishi* in view Inoue et al. (U.S. Patent No. 5,982,380) ("*Inoue*"); rejected claims 5, 7, 8, 11, and 12 under 35 U.S.C. § 103(a) as being unpatentable over *Negishi* in view of Koss et al. (U.S. Patent No. 5,720,019) ("*Koss*"); rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Negishi* in view *Koss* and further in view of *Inoue*; and rejected claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over *Negishi* in view *Inoue* in view of *Koss* and further in view of Oliver et al. (U.S. Patent No. 5,313,610) ("*Oliver*").

Claims 1 and 5 have been amended. Claims 1-12 remain pending.

Applicants respectfully traverse the rejections of claims 1-12 under 35 U.S.C. § 103(a).

Independent claim 1 recites a clipping device including, for example:

> a clip code generation circuit . . .
> a current clip register for shifting the clip codes generated at said clip code generation circuit;
> clip registers cascade connected to an output of said current clip register and able to replace the held data with the clip codes held by the register of a previous stage;

(emphasis added). The prior art cited by the Examiner, including *Negishi*, does not teach or suggest each and every element of independent claim 1. A *prima facie* case of

[1] The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

obviousness has, therefore, not been established.

Neghishi discloses "a clip code indicates if an object is positioned inside or outside a clip space of a rectangular parallelopiped which is defined by clip frames of six chip plates (X=XMAX, X=XMIN, Y=YMAX, Y=YMIN, Z=ZMAX, Z=ZMIN)" (column 7, line 67 - column 8, line 4). Shift registers 304, 305, and 306 hold clip codes for the three vertices and the data from these registers is loaded to the clip state generator 307 and the clip code register 308 (col. 8, lines 53-55). However, *Negishi* does not teach "a current clip register for shifting the clip codes generated at said clip code generation circuit" and "clip registers cascade connected to an output of said current clip register and able to replace the held data with the clip codes held by the register of a previous stage", as recited in claim 1.

Accordingly, *Neghishi* fails to establish a *prima facie* case of obviousness with respect to claim 1, at least because the reference fails to teach each and every element of the claim. Claim 2 depends from claim 1 and is thus also allowable over *Neghishi*, for at least the same reasons as claim 1.

According to the Examiner, *Koss* teaches a current clip register and clip registers of at least a number smaller than the number of the vertices of said primitive by one cascade connected to an output of said current clip register and able to replace the held data with the clip codes held by the register of a previous stage in accordance with a control signal (Office Action at page 11). Applicants respectfully disagree.

Koss teaches vertex clip code shift registers 220, 244, 246, and 248 (Fig. 4). First vertex clip code shift register 220 includes a series of six single-bit memory cells 232 (323 in Figure 4), 234, 236, 238, 240, and 242 (col. 9, lines 52-55). These memory

cells shift their contents by two elements and perform a two-bit parallel load at the same time (col. 10, lines 1-4). For example, the contents of the first memory cell 232 are shifted to the third memory cell 236, and contents from the second memory cell 234 are shifted to the fourth memory cell 238 (col. 10, lines 4-8).

Even assuming, absent any teaching in *Koss*, that the shifting of the contents to different memory cells is a cascade, this cascade only exists within the specific shift register. There is no cascade of the contents between shift registers (See Fig. 4 and 7 of *Koss*). Therefore, *Koss* does not teach "clip registers cascade connected to an output of said current clip register", as recited in claim 1.

Moreover, in *Koss*, "shift registers 220, 244, 246, and 248 have parallel outputs operatively connected to different inputs of an accept/reject circuit 250" (col. 10, lines 18-20). Because the output of each shift register 220, 244, 246, and 248 is fed to the accept/reject circuit 250, there is no output from one shift register to another. No shift registers are connected to each other. As shown in Fig. 4, maximum output line 210 and minimum output line 212 are connected to a respective parallel input line of each of shift registers 220, 244, 246, and 248. The outputs of each shift register is connected to only the accept/reject circuit 250. Therefore, *Koss* does not teach "clip registers cascade connected to an output of said current clip register and able to replace the held data with the clip codes held by the register of a previous stage", as recited in claim 1.

Accordingly, *Neghishi* and *Koss* fail to establish a *prima facie* case of obviousness with respect to claim 1, at least because the references fail to teach each and every element of the claim. Claims 2-4 depend from claim 1 and are thus also allowable over *Neghishi* in view of *Koss*, for at least the same reasons as claim 1.

Independent claim 5, though of different scope from claim 1, recites limitations similar to those set forth above with respect to claim 1. Claim 5 is therefore allowable for at least the reasons presented above. Claims 7, 8, 11, and 12 depend from claim 5 and are thus also allowable over *Neghishi* in view of *Koss,* for at least the same reasons as claim 1.

Although the Examiner cites *Inoue* in the rejection of dependent claims 3, 4, and 6 and *Oliver* in the rejection of dependent claims 9 and 10, Applicants respectfully assert that *Inoue* and *Oliver* fail to cure the deficiencies of *Negishi* and *Koss* discussed above.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-12 in condition for allowance. This Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicants' invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance.

Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants respectfully request reconsideration of the application and withdrawal of the rejections. Pending claims 1-12 are in condition for allowance, and Applicants request a favorable action.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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